



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,081	05/25/2005	Goran Borgesson	4307-1001	5688
<div>465 7590 07/31/2009</div> <div>YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314</div>			<div>EXAMINER</div> <div>SRIRAMAN, NIKHIL</div>	
			<div>ART UNIT</div> <div>3664</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>07/31/2009</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,081

Applicant(s)

BORGESSON, GORAN

Examiner

NIKHIL SRIRAMAN

Art Unit

3664

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 19, 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 21-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 21-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

This is a non-final Office Action on the merits in response to communications filed by Applicant on May 19, 2009. The cancellation of claims 14-21 has been received and entered. Therefore, claims 1-13 and 21-22 are currently pending and addressed below.

Election/Restrictions

1. Applicant's election without traverse of claims 1-13 and 21-22 in the reply filed on May 19 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-13 and 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, line 1 recites "Vehicle control system (10), capable of. . ."

The language following the clause, "capable of" is a statement of intended use that

does serve to patentably distinguish the claimed structure over that of the reference, as long as the structure of the cited reference is capable of performing the intended use.

See MPEP 2111-2115; See *also* MPEP 2114 that states a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2d 1647.

Further regarding claim 1, line 8-9 recite "characterized in that it comprises. . ." A number of elements are recited preceding this phrase such as "vehicle control system," "motor vehicle subsystem" and "output arrangement". It is unclear to which of these, if not another claim element, the term "it" is referring.

Regarding claim 9, lines 4-5 recite "the load registered by the load sensor", where neither the term "load" nor "load sensor" are previously introduced in either the claim or one upon which it depends. This introduces uncertainty as to whether this claim was instead intended to depend on a different claim, which the antecedent basis suggests. Alternatively, the antecedent basis could have simply been improper. In either event, there is uncertainty as to the claim scope.

Regarding claims 10-12, for reasons similar to those stated regarding claim 9, uncertainty exists with respect to the terms "the load", "the load sensor", "the towing sensor", "the towing hook" (claim 10), "the speed", "the speed sensor", "the tilt" and "the tilting angle" (claim 11).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **[AS BEST UNDERSTOOD]** Claims 1, 4, 6, 12 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Muller (6,249,727 B1).

Regarding claim 1, Muller discloses vehicle control system (Fig. 1, item 12), capable of controlling a number of controllable motor vehicle subsystems (Col. 3, lines 39-67 via "at least one vehicle subsystem") according to at least two preset vehicle operating modes (Col. 4, lines 10-67 via "customization or limits the operating parameters"), the control system comprises a central control unit (Fig. 1 via electronic controller 32) for controlling the motor vehicle subsystems (Col. 4, lines 10-40 via "hydraulic subsystem, engine subsystem or operator comfort subsystem"), and a driver interface with an input arrangement (Col. 3, lines 60-66) and an output arrangement (Col. 4, lines 10-40) for selecting operating mode, characterized in that it comprises at least one sensor (Fig. 1, item 28) for registering current operating conditions, and that the central control unit is arranged to limit access to at least one of the preset operating modes in response to an output value from at least one sensor (Col. 4, lines 40-52).

Regarding claim 4, Muller further discloses at least one speed sensor (Col. 4, lines 53-67).

Regarding claim 6, Muller further discloses at least one controllable accessory system (Col. 4, lines 40-52 via "bucket 18") and that the central control unit (controller 32) is arranged to limit access (Col. 4, lines 10-40 via "enabling or customizing or limiting the operating parameters") to at least one of the preset operating modes (Col. 4, lines 40-52 via "cylinder extension) in response to a mode of operation of at least one accessory system (Col. 4, lines 40-52 via "vehicle travel limit for bucket 18").

Regarding claim 12, Muller further discloses that the output arrangement is integrated with a dashboard of display type, and in that the dashboard-image is mode-adapted for each preset operating mode (Col. 4, lines 10-40).

Regarding claims 21-22, use of the system claim as recited above with regard to claim 1 reads on the method of claims 21-22.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **[AS BEST UNDERSTOOD]** Claims 2-3, 5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (6,249,727 B1).

Regarding claims 2-3 and 5, while Muller discloses displacement and velocity sensors, it fails to disclose at least one load sensor for registering the load in the vehicle (claim 2), at least one towing sensor arranged to recognize if the vehicle is used for

towing a trailer (claim 3), at least one tilting sensor arranged to register tilting of the vehicle (claim 5).

However, all of these sensors are notoriously well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to substitute the sensor as disclosed by Muller with any one of these well known sensors as a matter of design choice.

Regarding claims 7-8, while Muller discloses a controllable accessory system in the form of a bucket (Col. 4, lines 40-52 via "bucket 18"), Muller fails to disclose a controllable accessory system in the form of a foldable towing hook (claim 7) or in the form of a foldable roof rack (claim 8).

However, all of these accessory systems are notoriously well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to substitute the accessory system as disclosed by Muller with any one of these well known accessory system as a matter of design choice.

9. Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (6,249,727 B1) in view of Gormley (5,513,107).

Regarding claim 9, while Muller discloses preset operating modes not selectable under some sensor conditions as recited above for claim 1.

Muller fails to disclose, but Gormley does disclose one of the preset vehicle operating modes is a sport mode characterized in that this mode is not selectable or automatically selectable under certain operating conditions for security and safety (Col. 2, lines 9-41).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the control system as disclosed by Muller to include a sport mode not selectable under certain operating conditions for security and safety (Col. 2, lines 9-41).

Neither Muller nor Gormley disclose limiting sport mode access when a load registered by the load sensors exceeds a preset load limit, nor when the towing sensor indicates that there is a trailer hooked onto the towing hook, limiting off-road mode access.

However, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the control system as disclosed by Muller and Gormley to choose alternative conditions under which the sport mode and off-road mode is limited for security and safety (Col. 2, lines 9-41).

Regarding claim 10, while Muller discloses preset operating modes not selectable under some sensor conditions as recited above for claim 1.

Muller fails to disclose, but Gormley does disclose one of the preset vehicle operating modes is a sport performance, cruise performance, luxury performance and an off-road mode or like mode of performance mode, characterized in that at least some of these modes are automatically selectable under certain operating conditions for security and safety (Col. 2, lines 9-41).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Muller to include one of the types of performance modes as disclosed by Gormley for security and safety (Gormley, Col. 2, lines 9-41).

Neither Muller nor Gormley explicitly disclose a heavy load mode automatically selected based on load and towing sensor detections.

However, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the control system as disclosed by Muller and Gormley to choose alternative conditions under which vehicle operation is initiated for security and safety (Col. 2, lines 9-41).

Regarding claim 11, Muller discloses preset operating modes not selectable under some sensor conditions as recited above for claim 1.

Muller fails to disclose, but Gormley does disclose one of the preset vehicle operating modes is an off-road mode characterized in that characteristics of operating subsystems are defined (Col. 2, lines 9-41) for optimal performance (Col. 1, lines 49-58) and the mode is maintained under certain conditions for security and safety (Col. 2, lines 9-41).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the control system as disclosed by Muller to include an off-road mode with defined subsystem operating characteristics for security and safety (Col. 2, lines 9-41; (Gormley, Col. 2, lines 9-41).

Neither Muller nor Gormley disclose limiting accelerations at a given speed when in off-road mode or locking into off-road mode upon a certain level of tilt.

However, it is notoriously well known to limit acceleration in certain driving mode or driving modes based on sensor detection.

Therefore, it would have been obvious to one having ordinary skill in the art to limit acceleration when in off-road mode for optimal performance (Gormley, Col. 1, lines 49-58) and set these conditions for locking off-road mode for security and safety (*Id.*, Col. 2, lines 9-41).

Regarding claim 13, Muller fails to disclose, but Gormley does disclose an automobile, characterized in that it comprises a vehicle control system according to claim 1 (Fig. 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to combine the control system as disclosed by Muller with an automobile as disclosed by Gormley in order to employ a vehicle control system on one of the most commonly employed motorized vehicles.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Scarlett et al. (6,144,910) discloses a vehicle control apparatus and method.

Yokote et al. (4,922,427) discloses a combined power steering and variable suspension control arrangement.

Karmel et al. (4,829,434) discloses an adaptive vehicle that analyzes the dynamic behavior of the vehicle operator.

Landes (6,060,981) discloses a vehicle security system for unattended idle operations.

Barthel et al. (5,081,586) discloses a multiplexing of accessories of a vehicle.

Levine (6,721,644 B2) discloses a vehicle drive override subsystem.

Cetinkunt et al. (6,330,502 B1) discloses a method and system for selecting a desired response of an electronic controlled sub-system.

Takahashi (5,172,785) discloses a vehicle control system adjustable in accordance with driver's age and characteristic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIKHIL SRIRAMAN whose telephone number is (571)270-5797. The examiner can normally be reached on Monday through Friday, 7:30am-5:00pm, with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/501,081
Art Unit: 3664

Page 11

NIKHIL SRIRAMAN
Examiner
Art Unit 3664

N.S.
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664